UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK
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In re VALE S.A. SECURITIES LITIGATION

REPORT & RECOMMENDATION
19-CV-526-RJD-SJB

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BULSARA, United States Magistrate Judge:

This is a securities fraud class action brought against Vale S.A. ("Vale"), a mining company located in Brazil, and certain of its senior executives (together, "Defendants"),[1] arising out of the January 2019 collapse of Dam 1 of Vale's Córrego do Feijão iron ore mine in Minas Gerais, Brazil ("Dam 1"). After the collapse, regulatory bodies and law enforcement found that Vale and certain executives "concealed and failed to correct known problems" related to the mine's security and safety.[2] Currently pending before the Court is a motion by Lead Plaintiff Colleges of Applied Arts and Technology Pension Plan ("Plaintiff," "Lead Plaintiff," or "CAAT") for class certification.[3] CAAT seeks certification of a class of all persons who purchased Vale (1) American Depositary Shares ("Vale ADSs"); (2) 5.875% Guaranteed Notes due 2021; (3) 4.375% Guaranteed Notes due 2022; (4) 6.250% Guaranteed Notes due 2026; (5) 8.250% Guaranteed Notes due

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[1] The senior executive defendants are Vale's Chief Executive Officers Murilo Ferreira ("Ferreira") and Fabio Schvartsman ("Schvartsman"), its Chief Financial Officer Luciano Siani Pires ("Pires"), its Executive Director of Ferrous Minerals and Coal Gerd Peter Poppinga ("Poppinga"), and its Executive Director of Sustainability and International Business Luiz Eduardo Froes do Amaral Osorio ("Osorio", and together, the "Individual Defendants").

[2] Corrected Mem. of Law in Supp. of Lead Pl.'s Mot. for Class Certification and Appointment of Class Rep. and Class Counsel dated Feb. 19, 2021, Dkt. No. 97 ("Mot. for Class Cert."), at 2.

[3] Notice of Lead Pl.'s Motion for Class Certification and Appointment of Class Rep. and Class Counsel dated Feb. 15, 2021 ("Notice of Mot."), Dkt. No. 96.

2034; (6) 6.875% Guaranteed Notes due 2036; (7) 6.875% Guaranteed Notes due 2039; or (8) 5.625% Notes due 2042 ("Vale Notes"), (together, "Vale Securities"), between October 27, 2016 and February 6, 2019 (the proposed "Class Period").

For the reasons stated below, the Court recommends that the motion for class certification be granted.[4]

FACTUAL BACKGROUND AND PROCEDURAL HISTORY

The Consolidated Amended Complaint asserts claims on behalf of purchasers of Vale Securities from July 28, 2016 to February 6, 2019 and alleges violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Exchange Act"), 15 U.S.C. §§ 78j(b) and 78t(a), and Rule 10b-5, 17 C.F.R. § 240.10b-5.[5] CAAT alleges that Defendants misrepresented and failed to disclose material information that: (1) Dam 1 had a high probability of failure; (2) Vale's dam risk management and sustainability practices were insufficient in light of Dam 1's known risks; (3) Vale obtained certifications for dams that were not stable; and (4) Vale's third-party dam safety

[4] CAAT has also moved for an order appointing Kaplan Fox & Kilsheimer LLP ("Kaplan Fox") as class counsel and CAAT as class representative. (See Notice of Mot. at 1; Mot. for Class Cert. at 23–24). The Court denies this request as moot in light of the Court's prior order appointing CAAT as Lead Plaintiff and Kaplan Fox as Class Counsel. *Rauch v. Vale S.A.*, 378 F. Supp. 3d 198, 211–12 (E.D.N.Y. 2019). The Court finds no reason to revisit its prior decision.

[5] Consolidated Class Action Compl. dated Oct. 25, 2021, Dkt. No. 47 ("CAC").

The present motion proposes a class period starting on October 27, 2016 rather than July 28, 2016, as plead in the Consolidated Amended Complaint, because the allegedly fraudulent statement of July 28, 2016 was deemed inactionable following Defendants' Motion to Dismiss. *In re Vale S.A. Sec. Litig.*, No. 19-CV-526, 2020 WL 2610979, at *19 (E.D.N.Y. May 20, 2020) (citing CAC ¶ 125).

auditor "had a financial conflict of interest" and had issued Stability Condition Statements notwithstanding its substandard safety due to fear of economic reprisal.[6]

On May 20, 2020, the Court denied Defendants' Motion to Dismiss in part. *In re Vale*, 2020 WL 2610979, at *1. The Court analyzed three categories of alleged misstatements or omissions made in various public documents: statements related to (1) dam conditions; (2) dam safety and risk management policies and practices; and (3) Vale's commitment to safety and sustainability. *Id.* at *10–15. It held that 26 alleged misstatements or omissions were actionable while 22 were not.[7] *Id.* at *19. And on July 23, 2020, the Court denied Vale's Motion for Reconsideration.[8]

On June 4, 2021, CAAT's motion for class certification was fully briefed.[9] The Honorable Raymond J. Dearie referred the motion to the undersigned on June 8, 2021.[10]

DISCUSSION

I. Legal Standard

Class certification is governed by Federal Rule of Civil Procedure 23. "Rule 23 does not set forth a mere pleading standard." *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S.

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[6] CAC at ¶ 10–11; *see also* Mot. for Class Cert. at 3.

[7] The 22 non-actionable statements are alleged at CAC ¶¶ 125, 131, 132, 137, 139, 140, 143, 155, 160, 167, 170, 171, 172, 177, 178, 179, 180, 181, 185, 190, 192, 193. The 26 actionable statements are alleged at CAC ¶¶ 127, 129, 133, 135, 138, 142, 147, 148, 150, 151, 153, 157, 158, 161, 163, 164, 168, 174, 182, 184, 188, 189, 191, 195, 197, 199.

[8] Mem. & Order dated July 23, 2020, Dkt. No. 80, at 11.

[9] Reply Mem. of Law in Further Supp. of Lead Pl.'s Mot. for Class Certification and Appointment of Class Representative and Class Counsel dated June 4, 2021 ("Reply"), Dkt. No. 101.

[10] Order Referring Mot. dated June 8, 2021.

338, 350 (2011). Plaintiffs seeking class certification under Rule 23 must satisfy each of the conditions in Rule 23(a). *In re Initial Pub. Offering Sec. Litig.*, 471 F.3d 24, 41 (2d Cir. 2006). "The party seeking 'class certification must affirmatively demonstrate . . . compliance with the Rule,' and a district court may only certify a class if it 'is satisfied, after a rigorous analysis,' that the requirements of Rule 23 are met." *In re Am. Int'l Grp., Inc. Sec. Litig.*, 689 F.3d 229, 237–38 (2d Cir. 2012) (quoting *Wal-Mart*, 564 U.S. at 350). "Rigorous analysis" means that:

> (1) a district judge may certify a class only after making determinations that each of the Rule 23 requirements has been met; (2) such determinations can be made only if the judge resolves factual disputes relevant to each Rule 23 requirement and finds that whatever underlying facts are relevant to a particular Rule 23 requirement have been established and is persuaded to rule, based on the relevant facts and the applicable legal standard, that the requirement is met; (3) the obligation to make such determinations is not lessened by overlap between a Rule 23 requirement and a merits issue, even a merits issue that is identical with a Rule 23 requirement; (4) in making such determinations, a district judge should not assess any aspect of the merits unrelated to a Rule 23 requirement; and (5) a district judge has ample discretion to circumscribe both the extent of discovery concerning Rule 23 requirements and the extent of a hearing to determine whether such requirements are met in order to assure that a class certification motion does not become a pretext for a partial trial of the merits.

In re Initial Pub. Offering Sec. Litig., 471 F.3d at 41. Rule 23(a) requires proof that

> (1) the class is so numerous that joinder of all members is impracticable;
> (2) there are questions of law or fact common to the class;
> (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class; and
> (4) the representative parties will fairly and adequately protect the interests of the class.

Fed. R. Civ. P. 23(a). These requirements are referred to as numerosity, commonality, typicality, and adequacy. In addition, Rule 23(a) contains an implicit requirement of "ascertainability." *In re Petrobras Sec.*, 862 F.3d 250, 264 (2d Cir. 2017) ("The ascertainability doctrine that governs in this Circuit requires only that a class be defined

using objective criteria that establish a membership with definite boundaries.”). Plaintiffs must satisfy each of these requirements by a preponderance of the evidence. *Teamsters Loc. 445 Freight Div. Pension Fund v. Bombardier Inc.*, 546 F.3d 196, 202 (2d Cir. 2008); *Novella v. Westchester Cnty.*, 661 F.3d 128, 148–49 (2d Cir. 2011). If a party satisfies the requirements of Rule 23(a), then it “must also demonstrate that the proposed class fits within one of the subdivisions of Rule 23(b).” *Pirnik v. Fiat Chrysler Autos., N.V.*, 327 F.R.D. 38, 43 (S.D.N.Y. 2018).

1. Rule 23(a) Requirements

a. Numerosity

Rule 23(a)(1) requires that the prospective class be so numerous that joinder is “impracticable.” “Impracticability does not mean impossibility of joinder, but refers to the difficulty or inconvenience of joinder.” *In re Indep. Energy Holdings PLC Sec. Litig.*, 210 F.R.D. 476, 479 (S.D.N.Y. 2002); *see also Robidoux v. Celani*, 987 F.2d 931, 935 (2d Cir. 1993) (“Impracticable does not mean impossible.”). “In the Second Circuit, ‘[n]umerosity is presumed for classes larger than forty members.’” *K.A. v. City of New York*, 413 F. Supp. 3d 282, 301 (S.D.N.Y. 2019) (alteration in original) (quoting *Pa. Pub. Sch. Emps.’ Ret. Sys. v. Morgan Stanley & Co., Inc.*, 772 F.3d 111, 120 (2d Cir. 2014)).

CAAT contends that the number of Class Members is likely in the thousands given both the high trading volume and the trading frequency of Vale Securities during the Class Period. (Mot. for Class Cert. at 7). Defendants do not dispute this estimate. Accordingly, the Court concludes that the number of members in the class is so numerous that joinder would be impracticable and CAAT has established numerosity.

b. Commonality

Commonality exists if plaintiffs' claims share a common question of law or fact. Fed. R. Civ. P. 23(a)(2). This requires CAAT "to demonstrate that the class members 'have suffered the same injury,'" *Wal-Mart*, 564 U.S. at 350 (quoting *Gen. Tel. Co. v. Falcon*, 457 U.S. 147, 157 (1982)), not "merely that they have all suffered a violation of the same provision of law," *id.* (noting that the language of Rule 23(a)(2) is "easy to misread, since any competently crafted class complaint literally raises common questions") (quotations and alteration omitted). That is,

> [i]t asks not simply whether there are questions of law or fact common to the class, but whether a class action is capable of "generat[ing] common *answers* apt to drive the resolution of the litigation." . . . [T]here must be "a common contention . . . of such a nature . . . that determination of its truth or falsity will resolve an issue that is central to the validity of each one of the claims in one stroke."

Jackson v. Bloomberg, L.P., 298 F.R.D. 152, 162 (S.D.N.Y. 2014) (second, third, fifth, and sixth alterations in original) (quoting *Wal-Mart*, 564 U.S. at 350); *Marcus v. AXA Advisors, LLC*, 307 F.R.D. 83, 96 (E.D.N.Y. 2015) ("What matters to class certification . . . is not the raising of common 'questions' . . . but, rather the capacity of a classwide proceeding to generate common answers apt to drive the resolution of the litigation." (alterations in original) (quoting *Wal-Mart*, 564 U.S. at 350)).

According to CAAT, the common questions here are: (1) whether "Defendants misrepresented or omitted information" about the safety and security of Dam 1; (2) whether "Defendants knew or recklessly disregarded that their statements and omissions were false or misleading"; (3) whether "the prices of Vale Securities were artificially inflated during the Class period"; (4) what "the extent of damages [is] . . . and the appropriate measure"; and (5) whether the Individual Defendants exerted control

over any violations. (Mot. for Class Cert. at 8, 8 n.6). Again, Defendants do not dispute these contentions satisfy the Rule 23(a) requirement. The Court concludes that CAAT's allegations present common questions about whether a reasonable investor would have believed that Vale maintained sufficient risk management practices and its dams were in suitable condition with a low probability of failure, and whether Defendants knowingly concealed information to the contrary. And furthermore, the Court finds that CAAT has sufficiently alleged that the proposed class members have suffered an injury common to the class—namely, a financial loss from the drop in the price of Vale Securities that occurred after the truth regarding the safety and security of Vale's dams was revealed. *See infra* at 42–47.

c. <u>Typicality</u>

The typicality

> requirement is satisfied when each class member's claim arises from the same course of events and each class member makes similar legal arguments to prove the defendant's liability. When it is alleged that the same unlawful conduct was directed at or affected both the named plaintiff and the class sought to be represented, the typicality requirement is usually met irrespective of minor variations in the fact patterns underlying individual claims.

Robidoux, 987 F.2d at 936–37 (citations omitted); *see also Marisol A. v. Giuliani*, 126 F.3d 372, 376–77 (2d Cir. 1997) (per curiam). Here, this element is in dispute: Defendants contend that CAAT failed to show that all class members have suffered injury stemming from the same course of events and grounded in the same theory of liability, and therefore, CAAT's claims are atypical of the class. (Defs.' Mem. of Law in Opp'n to Pl.'s Mot. for Class Certification and Appointment of Class Representative and Counsel dated April 9, 2021 ("Opp'n"), Dkt. No. 106 at 23).

Defendants rely exclusively on a single inapposite case for their typicality argument: *In re Vale S.A. Sec. Litig.*, 15-CV-9539, 2019 WL 11032303 (S.D.N.Y. Sept. 27, 2019). That case addressed alleged securities fraud involving a different Vale dam collapse. *Id.* at *1. Judge Woods found that the plaintiffs' proposed class was "beset by a fundamental tension" because the lead plaintiff asserted two theories of liability: (1) that Vale made statements before the dam collapse that misled investors into believing that Vale was responsible for the dam's operation and safety policies, *and* (2) that Vale made post-collapse statements suggesting that Samarco, an owner and operator that Vale partially owned (not Vale itself), was responsible for the dam's operation. *Id.* Judge Woods found that there was an inevitable tension between the two fraudulent statements—one fraud alleged Vale was responsible; the other that Samarco was responsible—and a shareholder could not have relied on both statements simultaneously. *Id.* Because both could not be true at the same time, individual class members would have to pick which representation they believed when they purchased Vale securities. Yet the plaintiffs sought certification of a class that included individuals who had relied upon one set of statements, and those who relied upon the other. *Id.* at *6–7. However, without a single course of conduct and a unitary fraudulent scheme—and instead two divergent and mutually exclusive theories of fraud, only one of which a shareholder could properly allege—the Lead Plaintiff's claims could not be typical of a class with some members holding one set of claims, and remaining members holding another. *Id.* at *7.

Defendants try to import this conflict into the present litigation. It does not fit. Defendants argue that here CAAT also asserts two theories of fraud, namely that Defendants: (1) made misleading pre-collapse statements to investors about the

likelihood of the dam's failure and (2) made a misleading statement about its responsibility afterwards. (Opp'n at 23). But the sole statement about post-collapse responsibility does not create an intra-class conflict. The allegedly false post-collapse statement does not disclaim that Vale was the dam operator (as in *In re Vale*), but instead that the dam was inspected and declared safe consistent with Brazilian safety standards.[11] Both the pre- and post-collapse allegations assert that Vale lied about the dam's safety. Asserting that Vale made these misleading statements about dam safety before and after the collapse does not force class members to choose between competing narratives. An investor relying on pre-collapse assurances is not in tension with one relying on post-collapse reassurances—both are misled about the dam's safety. And Defendants do not explain the tension between the statements identified in the Complaint other than to say that some are pre-collapse and others post-collapse. That general statement does not create the kind of tension that defeats typicality. The Court agrees with CAAT that its claims are typical of class members who relied upon the identified statements made by Vale about the dam's safety, and thus its claims are based on the "same facts and legal theories," and will be proven by the "same evidence" as those of other class members. (Mot. for Class Cert. at 9).

[11] The sole surviving post-collapse statement, in Vale's January 28, 2019 6-K is the following: "The Dam I had Stability Condition Statements issued by TÜV SÜD do Brasil, an international company specialized in Geotechnics. The Stability Condition Statements were issued on 6/13/18 and 9/26/18, related to the Periodic Safety Review of Dams and Regular Dam Safety Inspection processes, respectively, as determined by the DNPM Decree 70.389/2017. The dam had a Safety Factor in accordance with the world's best practices and above the reference of the Brazilian Standard. Both of the abovementioned stability declarations attest to the physical and hydraulic safety of the dam." (CAC ¶ 199) (emphasis omitted).

d. Adequacy

To satisfy Rule 23(a)(4), the class representative must "fairly and adequately protect the interests of the class." Fed. R. Civ. P. 23(a)(4). That is, a class representative must "'possess the same interest and suffer the same injury' as the class members." *Amchem Prods., Inc. v. Windsor*, 521 U.S. 591, 625–26 (1997) (quoting *E. Tex. Motor Freight Sys., Inc. v. Rodriguez*, 431 U.S. 395, 403 (1977)). The adequacy requirement examines whether the class members have interests that are "'antagonistic' to one another." *In re Drexel Burnham Lambert Grp., Inc.*, 960 F.2d 285, 291 (2d Cir. 1992) (quoting *Eisen v. Carlisle & Jacquelin*, 391 F.2d 555, 562 (2d Cir. 1968)).

Defendants argue that a failure to correct an allegedly "inaccurate" statement by CAAT in its certification to serve as lead plaintiff in an unrelated case—a failure to disclose the losses it suffered due to holding a short position—renders it unreliable and inadequate to represent the class here. (Opp'n at 24–25). As to CAAT's certification—in *In re Groupo Televisa Sec. Litig.*, No. 18-CV-1979, 2020 WL 3050550 (S.D.N.Y. June 8, 2020)—it was accurate when made. And while the court in *In re Groupo Televisa* found that CAAT's short position rendered its claims atypical of those of class members, it did not conclude that CAAT displayed a lack of candor or engaged in impropriety. *Id.* at *7–8; *see also* Tr. of Oral Argument ("Tr.") at 31: 24–25, *Rauch v. Vale S.A.*, 19-CV-526 (E.D.N.Y. Nov. 17, 2021). The court did not deny certification because CAAT was an inadequate class representative, but on a different Rule 23(a) factor. *In re Groupo Televisa*, 2020 WL 3050550, at *8 (denying class certification on the basis of typicality).

It would be curious indeed for this Court to conclude now that CAAT made a misrepresentation to another tribunal or that CAAT was an inadequate class representative when the other tribunal itself did not reach such a conclusion. And it

would be a further stretch to then conclude that CAAT could not serve as an adequate lead plaintiff in this action with respect to different class members. No case stands for such a novel proposition and Defendants cannot cite any.

Without any proof of class antagonism in this case and with respect to the present class members, CAAT has satisfied the adequacy requirement.

2. Rule 23(b)(3) Requirements

Plaintiff seeks to certify a Rule 23(b)(3) class. (Mot. for Class Cert. at 11). Under this rule, a class may be maintained where "the court finds that the questions of law or fact common to the members of the class predominate over any questions affecting only individual members, and that a class action is superior to other available methods for the fair and efficient adjudication of the controversy." *Konig v. TransUnion, LLC*, No. 18-CV-7299, 2020 WL 550285, at *6 (quoting Fed. R. Civ. P. 23(b)(3)). The "predominance inquiry tests whether proposed classes are sufficiently cohesive to warrant adjudication by representation." *Amchem*, 521 U.S. at 623. "Even if Rule 23(a)'s commonality requirement may be satisfied by that shared experience, the predominance criterion is far more demanding." *Id.* at 623–24. The predominance "requirement is satisfied 'if resolution of some of the legal or factual questions that qualify each class member's case as a genuine controversy can be achieved through generalized proof, and if these particular issues are more substantial than the issues subject only to individualized proof.'" *Myers v. Hertz Corp.*, 624 F.3d 537, 547 (2d Cir. 2010) (quoting *Moore v. PaineWebber, Inc.*, 306 F.3d 1247, 1252 (2d Cir. 2002) (Sotomayor, J.)). Plaintiffs need not prove, however, that the legal or factual issues that predominate will be answered in their favor. *See, e.g.*, *Amgen Inc. v. Conn. Ret. Plans & Tr. Funds*, 568 U.S. 455, 468 (2013). "[I]ndividualized damages determinations alone

cannot preclude certification under Rule 23(b)(3)," but they are "a factor to consider in deciding whether issues susceptible to generalized proof outweigh individual issues." *Roach v. T.L. Cannon Corp.*, 778 F.3d 401, 408–09 (2d Cir. 2015) (quotations omitted).

A 10b-5 cause of action has several well-established elements: "(1) a material misrepresentation or omission by the defendant; (2) scienter; (3) a connection between the misrepresentation or omission and the purchase or sale of a security; (4) reliance upon the misrepresentation or omission; (5) economic loss; and (6) loss causation." *Matrixx Initiatives, Inc. v. Siracusano*, 563 U.S. 27, 37–38 (2011). When seeking certification of a Rule 23(b)(3) 10b-5 class, a plaintiff must demonstrate predominance with respect to only certain of these elements at class certification. *See Erica P. John Fund, Inc. v. Halliburton Co.*, 563 U.S. 804, 807 (2011) (*Halliburton I*) (holding that plaintiffs need not prove loss causation at certification); *Amgen*, 568 U. S. at 459 (holding that plaintiffs need not prove materiality at certification); *In re Petrobras Sec.*, 862 F.3d 250, 275 (2d Cir. 2017) (following a statement of the six elements required to state a 10b-5 claim, deciding an appeal on certification solely on the basis of reliance) (citation omitted).

Here, with some limited exceptions discussed below, the sole issue on which certification turns is reliance, and precisely, whether the market for Vale Securities was efficient during the class period. Because the Court concludes that the market was efficient, both for Vale ADSs and Notes, it concludes that certification is appropriate. And as to the assorted arguments raised by Defendants, including the nature of damages and "domesticity" of the transactions at issue, the Court concludes they are not a barrier to certification.

a. Predominance

Under *Basic v. Levinson*, 485 U.S. 224 (1988), certain plaintiffs are entitled to a "fraud on the market" presumption of reliance. That is, they are entitled to a rebuttable presumption that "(1) misrepresentations by an issuer affect[ed] the price of securities traded in the open market, and (2) investors rel[ied] on the market price of securities as an accurate measure of their intrinsic value[.]" *Hevesi v. Citigroup Inc.*, 366 F.3d 70, 77 (2d Cir. 2004); *see also McIntire v. China MediaExpress Holdings, Inc.*, 38 F. Supp. 3d 415, 426 (S.D.N.Y. 2014) (same).[12] But the presumption attaches only if the plaintiffs establish "(1) that the alleged misrepresentations were publicly known, (2) that they were material, (3) that the stock traded in an efficient market, and (4) that the plaintiff traded the stock between the time the misrepresentations were made and when the truth was revealed." *Halliburton Co. v. Erica P. John Fund, Inc.* (*Halliburton II*), 573 U.S. 258, 268 (2014).

The only dispute here is about the third element: market efficiency. "An efficient market is one in which the prices of the [stock] incorporate most public information rapidly." *Waggoner v. Barclays PLC*, 875 F.3d 79, 94 (2d Cir. 2017) (internal quotations omitted). "In other words, an efficient market is one in which 'market

[12] If the plaintiff successfully invokes the *Basic* presumption, "[t]he defendant may then rebut the presumption through '[a]ny showing that severs the link between the alleged misrepresentation and either the price received (or paid) by the plaintiff, or his decision to trade at a fair market price.'" *Goldman Sachs Grp., Inc. v. Arkansas Tchr. Ret. Sys.*, 141 S. Ct. 1951, 1958 (2021) (quoting *Basic*, 485 U.S., at 248) (second alteration in original). The "defendant bears the burden of persuasion to prove a lack of price impact . . . by a preponderance of the evidence." *Id.* at 1963. In doing so, a defendant must do more than provide "some" relevant evidence—its evidence "must 'in fact' 'seve[r] the link' between" misrepresentation and price. *Id.* at 1962 (citations omitted) (alteration in original). The only issue in dispute in this case is whether CAAT is entitled to the presumption in the first instance; Defendants have not offered alternative arguments intended to rebut the presumption.

professionals generally consider most publicly announced material statements about companies, thereby affecting stock prices.'" *Id.* (quoting *Teamsters Loc. 445 Freight Div. Pension, Fund v. Bombardier Inc.*, 546 F.3d 196, 199 n.4 (2d Cir. 2008)). When information in a company's statement is incorporated by an efficient market, the price of the company's stock is deemed to reflect that information, and if the statement was misleading, the statement will be deemed to have "defraud[ed] purchasers of stock even if the purchasers [did] not directly rely on the misstatements." *Bombardier*, 546 F.3d at 199 n.4 (citation omitted).

The Second Circuit "has not adopted a test for the market efficiency of stocks or bonds." *In re: Petrobras Sec. Litig.*, 312 F.R.D. 354, 364–65 (S.D.N.Y. 2016), *aff'd in part*, *vacated in part on other grounds*, 862 F.3d 250 (2d Cir. 2017)). To determine market efficiency, courts generally evaluate information provided in support of several multi-factor tests, an approach that the Second Circuit has tacitly endorsed. *See id.* at 365. The first set of factors, set forth in *Cammer v. Bloom*, 711 F. Supp. 1264, 1286–87 (D.N.J. 1989) are known as the "*Cammer* factors." These five factors are:

> (1) the average weekly trading volume of the [stock], (2) the number of securities analysts following and reporting on [it], (3) the extent to which market makers traded in the [stock], (4) the issuer's eligibility to file an SEC registration Form S–3, and (5) the demonstration of a cause and effect relationship between unexpected, material disclosures and changes in the [stock's] price[].

Waggoner, 875 F.3d at 94 (citation omitted) (alterations in original). The second set of factors, set forth in *Krogman v. Sterritt*, 202 F.R.D. 467 (N.D. Tex. 2001), are the "*Krogman* factors." These three factors are: "(1) the capitalization of the company; (2) the bid-ask spread of the stock; and (3) the percentage of stock not held by insiders ('the float')." *Krogman*, 202 F.R.D. at 474; *see also Waggoner*, 875 F.3d at 94–95.

> All but one of the *Cammer* factors examine *indirect* indicia of market efficiency for a particular security, such as high trading volume, extensive analyst coverage, multiple market makers, large market capitalization, and an issuer's eligibility for simplified SEC filings. The fifth *Cammer* factor, however, invites plaintiffs to submit *direct* evidence, consisting of empirical facts showing a cause-and-effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price.

In re Petrobras Sec., 862 F.3d at 276 (quotations omitted; emphasis added). As noted, CAAT seeks certification of a class of both Vale ADSs and Notes. Although Defendants do not dispute most of the *Krogman* and *Cammer* factors, each is analyzed below with respect to both types of securities.

i. <u>ADSs</u>

Defendants do not dispute that the first four *Cammer* factors support a finding that Vale ADSs traded in an efficient market; only the fifth *Cammer* factor—whether there is a cause and effect relationship between news and price impact—is in dispute. (Opp'n at 6–11; *see also* Tr. at 7: 20–21, 9: 23–25).

The first four *Cammer* factors suggest market efficiency for Vale ADSs. Under *Cammer* factor 1, average trading volume, "[t]urnover measured by average weekly trading of two percent or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; one percent would justify a substantial presumption[.]" *Cammer*, 711 F. Supp. at 1286 (citing Bromberg & Lowenfels, 4 *Securities Fraud and Commodities Fraud*, § 8.6 (Aug. 1988)). Here, Vale ADSs had an average weekly trading volume of approximately 133.6 million shares, or 9.9% of all outstanding ADSs. (Corrected Report on Market Efficiency of Professor Steven P. Feinstein, Ph.D., CFA dated Feb. 18, 2021 attached as Ex. A to Supp. Decl. of

Frederic S. Fox dated Feb. 19, 2021 ("Feinstein Rep."), Dkt. No. 97-1 ¶ 75). This suggests the ADSs traded in an efficient market.

Under *Cammer* factor 2, analyst coverage, CAAT's expert, Steven Feinstein, noted that 35 firms covered Vale Securities during the class period. (*Id.* ¶ 79). Again, this weighs in favor of a finding of market efficiency. *See In re Allergan PLC Sec. Litig.*, No. 18-CIV-12089, 2021 WL 4077942, at *10 (S.D.N.Y. Sept. 8, 2021) (satisfied where "at least twenty-nine analysts issued at least 1,200 reports on" the stock over the class period).

As for *Cammer* factor 3, Vale ADSs traded on the New York Stock Exchange ("NYSE"), where they traded "under the supervision of a lead market maker." (Feinstein Rep. ¶ 90). During the class period, "there were at least 140 market makers for Vale [ADSs][.]" (*Id.* ¶ 93). This is strong evidence that Vale ADSs traded in an efficient market. *See Cammer*, 711 F. Supp. at 1286–87 ("The existence of market makers and arbitrageurs would ensure completion of the market mechanism; these individuals would react swiftly to company news and reported financial results by buying or selling stock and driving it to a changed price level."). And as for *Cammer* factor 4, eligibility for F-3 registration, during the Class Period, Vale was "eligible to undertake an F-3 registration" and did file a Form F-3 Registration Statement. (Feinstein Rep. ¶ 104). This too points to market efficiency.

The three *Krogman* factors—which are also undisputed, (Opp'n at 10–11),—also suggest efficiency. As to market capitalization, during the Class Period, the market value of Vale's ADSs "excluding the common equity traded in Brazil, ranged between $10.0 billion and $20.6 billion . . . and averaged $15.3 billion." (*Id.* ¶ 107). Other courts have found significantly lower market capitalizations for a company's ADSs to be

sufficient to suggest trading in an efficient market. *See, e.g.*, *Carpenters Pension Tr. Fund of St. Louis v. Barclays PLC*, 310 F.R.D. 69, 92 (S.D.N.Y. 2015) (finding that a "quarterly market capitalization of Barclays ADS rang[ing] from $0.5 to $3.2 billion" supported market efficiency). As to the bid-ask spread, during the Class Period, the average bid-ask spread for the ADSs was 0.09%, or $0.01. (Feinstein Rep. ¶¶ 113–14). Again, other courts have found comparable figures support a finding of market efficiency. *See, e.g.*, *Billhofer v. Flamel Techs., S.A.*, 281 F.R.D. 150, 154 (S.D.N.Y. 2012) (average bid-ask spread of 0.198%). Finally, as to the "float" of Vale ADSs, or, the number of shares outstanding excluding those held by insiders, the figure ranged between $10.0 billion and $20.6 billion during the Class Period. (Feinstein Rep. ¶ 101).[13] This supports a finding of market efficiency. *See, e.g.*, *In re Allergan*, 2021 WL 4077942, at *10 (finding that because "99.9% of Allergan's outstanding common shares and 100% of its outstanding preferred shares were owned by the public," market efficiency was present).

Defendants do not provide evidence disputing any of these points regarding Vale ADSs. Considered together, this evidence strongly suggests that Vale ADSs traded in an efficient market. Indeed, the evidence is so conclusive and undisputed, the Court can and does find that the market for Vale ADSs was efficient during the class period, even without analyzing the remaining *Cammer* factor 5. The Second Circuit has explained that if the first four *Cammer* factors and the three *Krogman* factors are satisfied, the Court need not consider—and a plaintiff need not submit—evidence supporting

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[13] Indeed, "none . . . were held by insiders or affiliated corporate entities." (Feinstein Rep. ¶ 109).

Cammer factor 5, namely the demonstration of direct price impact resulting from news about the security:

> [W]e conclude that a plaintiff seeking to demonstrate market efficiency need not always present direct evidence of price impact through event studies. In so concluding, we do not imply that direct evidence of price impact under *Cammer* 5 is never important. . . . The *Cammer* and *Krogman* factors are simply tools to help district courts analyze market efficiency in determining whether the *Basic* presumption of reliance applies in class certification decision-making. But they are no more than tools in arriving at that conclusion, and certain factors will be more helpful than others in assessing particular securities and particular markets for efficiency.

Waggoner, 875 F.3d at 97–98.

In *Petrobras*, the Court analyzed a security much like Vale ADSs—Petrobras ADSs. The Petrobras ADSs were traded on the NYSE, had a trading volume of 14.1% of all common ADSs and 6.61% of all preferred ADSs outstanding, coverage by 50 analysts, a market capitalization of $16.9 billion, and a bid-ask spread of 0.09%. *Petrobras*, 312 F.R.D. at 365–66. Here, the Vale ADSs likewise traded on the NYSE, have a trading volume of 9.9% of all outstanding ADSs, coverage by 35 firms, a market capitalization of between $10.0 billion and $20.6 billion, and a bid-ask spread of 0.09%. *See supra* at 15–18.

In *Petrobras* there was a vigorous debate about the "direct" evidence of market efficiency: competing price impact studies, disputes about the methodology of those tests, and questions about whether either side's expert excluded critical pieces of information relevant to the methodology. *Petrobras*, 312 F.R.D. at 367–70 ("Almost every aspect was disputed. The experts even sparred over whether any direct evidence of the fifth factor existed."). As discussed below, that dispute (with the same expert, no less) is repeated in this case. But it is somewhat beside the point, in light of the other

evidence of market efficiency and the Second Circuit's clear instruction that a Court need not prioritize direct over indirect evidence. *See Waggoner*, 875 F.3d at 97–98; *see also In re Signet Jewelers Ltd. Sec. Litig*., No. 16-CIV-6728, 2019 WL 3001084, at *13 (S.D.N.Y. July 10, 2019) ("[W]here the remaining four *Cammer* factors and the three *Krogman* factors all point toward market efficiency, a court can dispose of *Cammer's* fifth factor completely."), *appeal withdrawn sub nom. Pub. Emps. Ret. Sys. of Mississippi v. Signet Jewelers Ltd.*, No. 19-3837, 2020 WL 773018 (2d Cir. Jan. 16, 2020).

Of course, it would be a different story if Defendants presented evidence that the market for Vale ADSs was *inefficient*. That is not what they have done. Instead, their expert has offered a rebuttal report, attacking the methodology, analysis, and opinions of CAAT's expert. (*See* Tr. at 37: 17–20, 38: 4–6 (THE COURT: "[I]s your expert opining that the market is inefficient and putting forth an affirmative statement of inefficiency as opposed to simply batting back the plaintiff[?]" MR. JORALEMON: "It's not Dr. Torous' burden to show that, but plaintiffs put forward an expert that actually demonstrated market inefficiency[.]"); *id.* at 63: 6–13 ("[T]he question [is] of plaintiff's threshold obligation to establish that they're entitled to the presumption of reliance on a class-wide basis and defendant's burden after that presumption is established . . . then to rebut it. We are not in Phase II here. We are talking about Phase I and every point here is that plaintiffs have not met their burden . . . and Dr. Torous' work, what he simply did . . . is tak[e] plaintiff's expert at his word and apply[] his work[.]"; *see* Rebuttal Expert Report of Walter N. Torous, Ph.D. dated Apr. 9, 2021 ("Torous Rep."), attached as Ex. 1 to Decl. of Christopher M. Joralemon dated Apr. 9, 2021 ("Joralemon Decl."), Dkt. No. 99 ¶¶ 13–14 (outlining methodology)). If the Court were to throw

CAAT's expert report away, and grant that all the identified methodological flaws in fact exist, it would still be left with all the indirect evidence of market efficiency of a security that trades on the NYSE. And, thus, it would still be able to conclude that CAAT is entitled to the *Basic* presumption. *See Pirnik*, 327 F.R.D. at 44 ("Defendants wisely do not dispute that Plaintiffs have established that FCA securities traded in an efficient market during the Class Period. FCA securities were traded on the [NYSE], 'a paradigmatic efficient market.') (quoting *In re Moody's Corp. Sec. Litig.,* 274 F.R.D. 480, 489 n.3 (S.D.N.Y. 2011)); *see also Lapin v. Goldman Sachs & Co.*, 254 F.R.D. 168, 183 (S.D.N.Y. 2008) ("[N]o argument could be made that the New York Stock Exchange is not an efficient market."); *see also In re DVI, Inc. Sec. Litig.*, 639 F.3d 623, 634 (3d Cir. 2011) ("Securities markets like the NYSE and the NASDAQ are open and developed, and are therefore well suited for application of the fraud on the market theory. Accordingly, the listing of a security on a major exchange such as the NYSE or the NASDAQ weighs in favor of a finding of market efficiency.") (internal citations and quotations omitted).[14]

[14] The Torous Report does opine that the indirect factors are insufficient to demonstrate market efficiency. But this weak assertion cites to nothing about Vale. Instead, it is based on a series of academic papers that give examples where the securities trade in efficient markets, despite satisfying the first four *Cammer* factors and three *Krogman* factors. Torous Rep. ¶¶ 23–30. This economic opinion is decidedly unhelpful. Besides being inconsistent with the legal framework for using these factors, which requires a holistic analysis that does not prioritize direct evidence over indirect evidence—*see Waggoner*, 875 F.3d at 97—using a few examples to illustrate a larger point demonstrates, at best, that there are exceptions to the general rule. But without evidence or discussion about the security in question, there is no reason to think that Vale ADSs fit within that exception. And in any event, an economic opinion—which prioritizes direct over indirect evidence—that is odds with the law is of little assistance.

For the sake of completeness, the Court does analyze *Cammer* factor 5. CAAT has offered direct evidence of market efficiency through its expert, who conducted an event study to test the efficiency of the Vale ADS market. "[A]n event study that correlates . . . disclosures of . . . material information . . . with corresponding fluctuations in price has been considered *prima facie* evidence" of a causal relationship under the fifth *Cammer* factor. *Bombardier*, 546 F.3d at 207–08.

CAAT's expert explains his event study was designed to "detect significant stock price movements" by focusing on information "events on which company-specific information was released that [was] new, unexpected, and of such import as to reasonably be expected to elicit a stock price reaction over the threshold for statistical significance." (Feinstein Rep. ¶¶ 126–27).[15] The study thus required isolation of particular information events "on which new allegation-related information was disclosed[.]" (*Id.* ¶ 131). To select "event dates," Feinstein "reviewed news and analyst reports to ascertain which events over the course of the Class Period were appropriate candidates for a market efficiency event study. . . . [and identified four which] would warrant a large stock price reaction[.]" (*Id.* ¶ 132; *see also id.* ¶¶ 38–151). Feinstein did not conduct a "collective event study" that typically analyzes all the dates that correspond with earnings announcements, since, he explained, Vale's earnings announcements "conveyed an offsetting mix of positive and negative news, combined frequently with anticipated results" that "would reasonably not drive a statistically significant" price change. (*Id.* ¶¶ 179–180; *see also* Feinstein Rep. ¶¶ 181–219). "Based

[15] He also explained that "[a] finding of statistical significance indicates market efficiency, but a finding of non-significance does not necessarily establish inefficiency, because a modest non-significant stock price reaction may be the appropriate and efficient stock price reaction to a particular announcement or event." (*Id.* ¶ 128).

on generally accepted principles of valuation," and the above criteria, Feinstein chose the following four dates, which all triggered negative analyst reaction or concern: January 25, 2019 (Vale announced Dam 1 had collapsed), January 28, 2019 (Brazilian officials froze additional Vale assets and authorities announced that executives may be held criminally liable), February 4, 2019 (article reporting that Vale had an injunction issued against it, requiring it to halt certain mine production, was published), and February 6, 2019 (Vale declared force majeure on certain iron ore and pellets sale contracts). (*Id.* ¶¶ 132–151) ("event dates"). Once the dates were selected, Feinstein conducted several analyses, including regressions, designed to determine "how the price of a company's security typically behaved in relation to the overall market and its industry sector, and then using the regression model to determine how much of each event day's actual return is explained by those market and sector effects" "as opposed to Company-specific information[.]" (*Id.* ¶¶ 152–65). In addition to regressions, Feinstein performed "*t*-tests" for each event to determine whether the stock price movement on the event date was statistically significant, meaning that it "must have been caused" by the release of "company-specific information." (*Id.* ¶ 166). Based on the regression models and the results of the *t*-tests, Feinstein concluded that all four of the news events "elicited statistically significant" price movement, meaning that the price reactions were not the result of random fluctuations. (*Id.* ¶¶ 170–78). The report concluded that the results of the study "provides empirical proof of a cause-and-effect relationship" between the release of company information and a change in the price of Vale Securities. (*Id.* ¶¶ 122–178 (ADSs); ¶¶ 261–276 (Notes)).

Defendants dispute Feinstein's methodology and argue his conclusions are unreliable for four reasons: (1) the selection of "event dates" was too "subjective," (2) too

few dates were tested, (3) the choice to use as test dates those dates alleged to be "corrective disclosures" biases the findings, and (4) the event dates—which span less than one month at the end of the Class Period—are an unrepresentative sample of a period that spans over two years. (Opp'n at 6–9).

The first criticism has considerable merit. "Factors to consider in determining the probative value of event studies include whether the study is based on a sufficiently large number of observations and the steps taken to minimize the subjectivity of the study." *In re Diamond Foods, Inc., Sec. Litig.*, 295 F.R.D. 240, 249 (N.D. Cal. 2013).

> It should be obvious, even to those without a background in statistics or econometrics, that the events for study should be selected using criteria that are as objective as possible. Further, those criteria should be determined before looking at the result to be studied . . . . Relatedly, unless the expert uses articulable objective criteria, it is difficult to evaluate the probative value of expert evidence without evaluating also the expert's own credibility.

In re Countrywide Fin. Corp. Sec. Litig., 273 F.R.D. 586, 618 (C.D. Cal. 2009). Feinstein contends that "[n]egative" news days were "ideal candidates" for testing market efficiency. (Tr. of Virtual Dep. of Steven Feinstein dated Mar. 24, 2021 ("Feinstein Tr.") attached as Ex. 2 to Joralemon Decl., at 138: 19–139: 1). This appears to be largely uncontroversial. But in deciding what constituted a "negative" news day, Feinstein did not rest his decision in some accepted sampling technique or other accepted methodological practice or principles. For example, although Feinstein talks about selecting dates based upon "generally accepted principles of valuation," (Feinstein Rep. ¶ 132), he does not identify or cite to them. And when he chose "event dates" based on news he found significant, he applied his own tests for significance, which he does not elucidate. According to CAAT, "[i]t is undisputed that proper event selection requires identifying company-specific news that is new, unexpected, and that is value-

relevant (*i.e.*, that would reasonably be expected to elicit a securities price reaction). *These criteria plainly require the exercise the exercise of professional judgment*." (Reply at 5–6 (emphasis added) (internal citations omitted)). To be sure, when preparing event studies based on "news days," researchers must use *some* discretion in defining the "selection criteria" of the "news events" and dates for testing. *In re Barclays Bank PLC Sec. Litig.*, No. 09-CIV-1989, 2017 WL 4082305, at *24 (S.D.N.Y. Sept. 13, 2017), *aff'd*, 756 F. App'x 41 (2d Cir. 2018), *as amended* (Nov. 20, 2018). Feinstein here picked four days, which he explains in detail. But for the events that he excluded—the dates he did not choose or which he excluded after review—he provides no detailed explanation at all as to why those news announcements were not worthy of inclusion. Instead, Feinstein provides conclusory top-level descriptions of the methodology. (*E.g.*, Feinstein Rep. ¶ 132 ("I reviewed news and analyst reports to ascertain which events over the course of the Class Period were appropriate candidates for a market efficiency event study."); *id.* ¶ 131 ("Events should be selected on the basis of an independent analysis of which candidate events are the most informative about market efficiency, and these events may be allegation-related or unrelated."); *id.* ¶ 127 ("Ideal candidate events for inclusion in an event study testing for market efficiency are therefore events on which company-specific information was released that is new, unexpected, and of such import as to reasonably be expected to elicit a stock price reaction over the threshold for statistical significance.")). He changes the nomenclature of his criteria for selection throughout his initial and rebuttal reports and his depositions: "noteworthy," "surprising," "new," "most informative," "big news days." (*E.g.*, Feinstein Rep. ¶¶ 20, 60, 121, 131; Rebuttal Report on Market Efficiency of Professor Steven P. Feinstein, Ph.D., CFA, dated June 4, 2021 ("Feinstein Rebuttal"),

attached as Ex. A to Decl. of Frederic S. Fox dated June 4, 2021 ("Fox Decl."), Dkt. No. 101-1 ¶ 56; Feinstein Tr. at 138: 5–6). The criteria about what is "new" or "of such import as to be reasonably be expected" or any of these any other terms is never spelled-out. Though a court or rebuttal expert could disagree about the decision to exclude such events, laying bare the reasoning for doing so would provide a basis to test the validity of those exclusion criteria and whether they were applied consistently or not. Defendants' expert criticizes this black box-like, unverifiable, standardless, and subjective methodology:

> Dr. Feinstein claims that the events he tested were selected "on the basis of an independent analysis of which candidate events are the most informative about market efficiency." (Feinstein Rep. ¶ 131). Dr. Feinstein testified that only events that are unexpected and, on balance, either positive or negative enough to elicit a stock price reaction should be tested. While in his deposition Dr. Feinstein further testified that he reviewed 4,315 article headlines in Factiva, and his report cites more than 1,000 analyst reports released during the Proposed Class Period, he provides no framework—other than a vague, qualitative description he provided in his deposition—for how he assessed whether the news on each day was unexpected and/or on balance either positive or negative. Without providing such a framework, his selection of dates is not replicable or verifiable and is thus inappropriate. It is highly inconceivable that over a 572 trading day period—a period during which the Vale ADRs' price fluctuated between $6.67 and $15.93 (an approximately 140 percent difference from trough to peak), Vale made nine earnings announcements, Vale experienced at least three credit ratings changes, and other noteworthy events known to affect public corporations, such as the departure of Vale's CEO, occurred—Dr. Feinstein would find *no other* dates with value-relevant news that was unexpected and on balance positive or negative.

(Torous Rep. ¶ 37 (citation in original as footnote)). Feinstein's response to this criticism is unpersuasive. He first contends that he "explained and demonstrated that candidate new events and announcements were evaluated for valuation relevance relative to generally accepted principles of valuation and considering the assessments of equity analysts covering Vale." (Feinstein Rebuttal ¶ 56). This less than pellucid

explanation does not actually identify any of the principles of valuation or criteria used. His further explanation fares no better:

> In examining earnings announcements as potential event study dates, I examined commonly considered financial performance metrics, such as revenue and earnings, and also other news and developments mentioned by analysts to be noteworthy. I took into account what reported information analysts considered surprising versus what they stated was expected, and assessed whether such characterizations were uniform or divergent across analysts and media reports.

(*Id.*). Why any of this makes clear why other events were not included in the event study is beyond the Court's ken. It substitutes shorthand, lingo, and jargon for explanation and methodology, and suggests that subjectivity and "trust the expert because of his expertise" is a basis to infer that the study is reliable. Feinstein then resorts to explaining repeatedly that there can be no dispute that the four dates he selected were significant and worthy of inclusion. (*Id.* ("As such, they are objectively the appropriate event dates for a market efficiency event study.")). But the question is not whether the four dates selected are appropriate for inclusion, but whether his exclusion of other dates and events was appropriate. And for that, he offers little but more generalized, unverifiable, subjective, and unexplained rationales. (*E.g., id.* ¶ 57 ("Dr. Torous finds no additional suitable candidates either. For additional consideration, he suggests four particular earnings announcements, but as I explained . . . the news on these dates did not satisfy the fully articulated screen and were thus not appropriate events[.]")).

As often happens with a battle of the experts, both sides spend more time engaging in rhetorical tête-à-tête than helpful, clear, and concise explanation to the fact-finder. Feinstein's rebuttal report is precisely this kind of unhelpful document. In response to very basic questions—what criteria were used to select which dates

constituted appropriate events for your study, and what criteria were used to exclude events—a report full of jargon and defensive retorts is unhelpful. Though the rebuttal report does attempt to take the four events that were identified by *Defendants'* expert and then go through the news for each to explain the news was "mixed" for each, this is of little assistance. The analysis reads like minute parsing of analyst statements to identify either the one sentence or sentence fragment as contrary to other segments of reports that run in the other direction. And it does so using no identifiable criteria or anything other than purely subjective analysis masquerading as a kind of objective assessment. (*E.g.*, *id.* ¶ 73 ("These reports simply do not express enthusiastic positive surprise. Combined with the evidence and excerpts I presented . . . Vale's earnings announcement on 27 October 2016 was definitely mixed news."); *id.* ¶ 77 ("But, mixed means mixed. While some analysts did highlight positives in the announcement, others latched onto the negatives.")).[16] For instance, how many negative reports turn a set of positive analyst reports into a mixed news event unworthy of study inclusion? Or how many analyst reports should be analyzed for a particular news event? Can a single

[16] This is not to say that an expert must use this approach and define these particular criteria. Just as there are ranges of subjectivity, there is a spectrum of objectivity. One could "look for sharp changes in volatility or price movements (*i.e.*, returns) then look for related disclosures." Michael L. Hartzmark & H. Nejat Seyhun, *The Curious Incident of the Dog That Didn't Bark and Establishing Cause-and-Effect in Class Action Securities Litigation*, 6 Va. L. & Bus. Rev. 415, 432 (2012). "An alternative strategy for identifying the importance of news is to examine large changes in share prices and related news developments." *Id.* at 433. Such approaches look at price movements first, rather than parsing news to determine on which days to then analyze price movements. *E.g., In re DVI Inc. Sec. Litig.*, 249 F.R.D. 196, 211 (E.D. Pa. 2008) ("Lead Plaintiffs' method of first identifying those days with significant stock returns and then identifying news events to explain the price change is a reasonable method of demonstrating the cause-and-effect relationship associated with an efficient market."), *aff'd* 639 F.3d 623 (3d Cir. 2011).

positive analyst report make an earnings announcement worthy of inclusion in the face of a series of negative reports by lesser-known analysts?[17] And this rebuttal report, like the initial report, uses wildly different terms and standards to argue why the news reports on certain days reflected "mixed" news and therefore made the date or event unworthy of inclusion in his event study. (*E.g.*, Feinstein Rep. ¶ 180 ("the earnings announcements conveyed an offsetting mix of positive and negative news"); *id.* ¶ 188 ("Despite the seemingly positive results . . . analyst reaction was tempered[.]"); *id.* ¶ 204 ("Analysts were generally pleased . . . but some expressed caution and reservations[.]"); Feinstein Rebuttal ¶ 67 ("[A]nalysts were not uniformly surprised . . . the analysts did not view the news as wholeheartedly positive or negative."); *id.* ¶ 73 ("These reports simply do not express enthusiastic positive surprise.")). His deposition is of the same vein. (Torous Rep. ¶ 49 n.112 ("The company will also talk other things going on, and when you look at the holistic mix of information, it was never -- there were no bombshells. . . . [I]t could be a modest surprise, and you might have a positive surprise on one metric, and a negative surprise on the other, and that would be mixed.") (quoting Feinstein Deposition, March 24, 2021, at 211: 18–212: 23)). At one point in explaining his criteria for explaining what is a "surprise" announcement is, he is equally cryptic. (Torous Rep. ¶ 37 n.69 ("There's certain language that's typically used when the market is surprised about a company announcement. Those are the kinds of things, kind of

[17] It is possible to conduct objective content-based analyses of news reports. *See generally* David Tabak, *Making Assessments About Materiality Less Subjective Through The Use of Content Analysis*, NERA Economic Consulting (March 13, 2007), available at https: //www.nera.com/content/dam/nera/publications/archive1/PUB_Tabak_Content_Analysis_SEC1646-FINAL.pdf (last visited Jan. 7, 2021).

things that would typically major events that would typically surprise the market, like I said major beats or major misses on earnings or revenue.") (quoting Feinstein Deposition, March 24, 2021, at 70: 5–71: 2)).[18]

This is not to say that subjective criteria could not have been used to select events for the study. But those criteria must be articulated and designed in a manner to reduce subjectivity as much as possible. Otherwise, what happens is a kind of post-hoc rationalization, where the expert finds ways to treat all criticisms and additional events as not fitting within his criteria. And, as happened here, the criteria morph into a series of amorphous, vague, flexible, and ever-changing standards to justify the conclusion and fend off any rebuttal. Such subjectivity can never be replicated, tested, or reliably verified, except by the person conducting the analysis in the first place. Whatever the merits of such an approach, it is not typically helpful to a factfinder. *E.g., Bricklayers & Trowel Trades Int'l Pension Fund v. Credit Suisse Sec. (USA) LLC*, 752 F.3d 82, 95 (1st Cir. 2014) (internal citation omitted) ("This case deals with a highly publicized merger that captured the attention of the entire financial industry. There is no doubt that Dr. Hakala faced a 'herculean task' in sorting through the continuous flow of information about AOL. We agree with the district court, however, that Dr. Hakala

[18] Neither side provides the Court with the complete deposition transcripts of their respective experts, and the excerpts of the depositions they provide are quite incomplete. For example, these deposition excerpts are from Defendants' expert report—*see* Torous Rep. ¶¶ 37 n.69, 49 n.112—and if there was additional context, CAAT does not provide surrounding excerpts for the Court's review. And Defendants do not even provide these excerpts, other than to quote them, in part, in their expert's report in microscopic font in assorted footnotes. This is all of a piece of the distinct impression that these experts are only repeating in this venue a battle that they have staged countless times before, leaving the Court as a bystander. But, as with most games of inside baseball, the participants—so familiar with each other and repeating their old attacks and parries in overly-lengthy and costly reports—fail to make a presentation useful to a new audience.

did not establish any reliable means of addressing this problem. Instead, he seemingly made a judgment call as to confounding information without any methodological underpinning."). Articulated criteria also permit a rebuttal expert to replicate the analysis. *See In re Teva Sec. Litig.*, No. 3:17-CV-558, 2021 WL 872156, at *33 (D. Conn. Mar. 9, 2021) (rejecting defendants' criticism that plaintiff's expert should have exercised discretion and examined the content of news in order to determine event days). There has not been such an articulation, as far as the Court can tell, and it makes it impossible to accord any weight to the event study. *See Brown v. China Integrated Energy Inc.*, No. CV-1102559, 2014 WL 12576643, at *7 (C.D. Cal. Aug. 4, 2014) (discounting and excluding expert whose criteria for inclusion was whether news was "of the import necessary to change the price" of security).

The preceding lack of clarity is compounded by, or heightens, the force of the other criticisms proffered by Defendants: the use of only four dates in the event study, all of which fall within the final two weeks of a multi-year class period. CAAT points out that there are no bright line rules about either the number of minimum days required for an event study or how they must be distributed across a class period. That being said, several courts have criticized the limitation of an event study to a handful of days. *See, e.g.*, *In re Countrywide Fin. Corp. Sec. Litig.*, 273 F.R.D. at 619 ("Dr. Jarrell's methodology on the debt securities yields results of little probative value. He ran a 'news reaction' event study on one of Countrywide's 'L Series' bonds . . . . For this study, Dr. Jarrell took *ten* days during the entire class period as his sample."); *In re PolyMedica Corp. Sec. Litig.*, 453 F. Supp. 2d 260, 270 (D. Mass. 2006) (finding that the "mere listing of five days on which news was released and which exhibited large price fluctuations proves nothing" about the cause and effect relationship between the release

of news and its reflection in the company's stock price). Approaches that only use a few days in an event study have, on the other hand, been endorsed. *See, e.g.*, *In re Groupo Televisa*, 2020 WL 3050550, at *7 (concluding "market behavior was consistent with an efficient market" on the basis of a study of four events in which "[t]hree of the four events were unlikely to cause an unusual market reaction" and a "single event which conveyed concrete, urgent . . . information . . . produced a statistically significant price drop"); *Smilovits v. First Solar, Inc.*, 295 F.R.D. 423, 435–37 (D. Ariz. 2013) (finding that *Cammer* factor 5 weighed slightly in favor of plaintiffs where plaintiffs' expert proffered an event study analyzing five days during a four-year class period).

As to the use of dates near the end of the class period as opposed to throughout the period, it is difficult to, again, create a *per se* rule. Feinstein states largely that the use of the four dates close to the end of the period is beyond his control—the behavior of the company is what it is and the four dates are the only events that emerged from his screen. This, of course, brings us back to the initial problem, and why being able to understand, replicate, and verify his initial screen is important. If the screen criteria are valid and not overly subjective, then it is easier to accept as plausible the output of the analysis, and the use of and reliance on only four dates near the close of the class period. If they are not, then we are left with dates and a study that gives less than a complete picture.[19]

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[19] Defendants argue that Feinstein's report is biased and unscientific, and his results pre-determined, since he used as test dates those dates that were alleged by CAAT as the corrective disclosure dates in this action. (Opp'n at 7–8). Feinstein admits he read the Consolidated Amended Complaint and knew that the dates selected were the same as the alleged corrective disclosure dates. But he also explains that he "was not aware of any statistical significance" of those dates prior to running the study, even though a stock price drop of 8 percent or 20 percent, like Vale's did, would "probably"

Where does this leave the Court? Many of the cases dealing with flawed event studies arise in the context of *Daubert* motions, where the question is whether to exclude the expert analysis entirely or not. Those cases conclude that the flaws, like the ones identified, go to weight, not admissibility. *E.g., Angley v. UTi Worldwide Inc.*, 311 F. Supp. 3d 1117, 1125 (C.D. Cal. 2018) ("It is unclear what objective criteria Jones used to determine what was 'not newsworthy' for purposes of including analyst reports from Thomson Reuters. While making a determination as to what was 'not newsworthy' would appear to include some subjectivity, analyzing what steps Jones's took to minimize the subjectivity of the study in determining what was 'not newsworthy' go to weight, not admissibility."). Here, the Court is being asked to weigh the direct evidence in favor of market efficiency. There are serious problems with the direct evidence proffered by CAAT; but Defendants' rebuttal does not offer a comparative study that suggests the market for Vale ADSs was inefficient. (Tr. of Dep. of Walter N. Torous dated May 14, 2021 ("Torous Dep."), attached as Ex. B to Fox Decl., at 23: 7–20 ("Q. . . . So you render no opinion on [whether the market for Vale ADRs and notes is efficient or inefficient], correct? A: That is correct."); *see also* Tr. at 12: 16–25; *id.* at 63: 4–17). The Court is left with no direct evidence of an efficient market. *See, e.g., In re JPMorgan Chase & Co. Sec. Litig.*, No. 12 CIV. 03852, 2015 WL 10433433, at *6 (S.D.N.Y. Sept. 29, 2015) ("As Defendants' expert offers no opinion on market efficiency through an event study of his own, the fifth *Cammer* factor can only weigh against Defendants or be

qualify as significant. (Feinstein Tr. at 139: 21–141: 16). While a court may deem unreliable an expert conclusion "when the expert selected events already knowing whether there was a significant price impact," *Ohio Pub. Emps. Ret. Sys. v. Fed. Home Loan Mortg. Corp.*, 08-CV-0160, 2018 WL 3861840, at *7 (N.D. Ohio Aug. 14, 2018), here, Defendants have not established such knowledge. *Id.*

neutral. It weighs in Plaintiffs' favor because Defendants have not demonstrated that the work of Plaintiffs' expert is so flawed as to fail to be probative of market efficiency."). But for the reasons stated, the Court still can conclude, based on largely unrebutted indirect evidence, that the Vale ADSs traded in an efficient market. *E.g.*, *Menaldi v. Och-Ziff Cap. Mgmt. Grp. LLC*, 328 F.R.D. 86, 96–98 (S.D.N.Y. 2018) ("This case fits comfortably within the *Waggoner* framework. It is true that [plaintiffs' expert's event] study is flawed. . . . [but] while [his] theory takes in some water, his basic premise mostly stays afloat. And even if it had not, the other seven *Cammer* and *Krogman* factors would likely suffice [to establish market efficiency]."); *Carpenters Pension Tr. Fund of St. Louis*, 310 F.R.D. at 84 ("[C]ourts have found market efficiency in the absence of an event study or where the event study was not definitive.") (collecting cases); *Första AP-Fonden v. St. Jude Med., Inc.*, 312 F.R.D. 511, 520 (D. Minn. 2015) ("A plaintiff's shortfall on the fifth *Cammer* factor alone does not outweigh, as here, showings on many other relevant factors.").

ii. Notes

Unlike the evidence presented for Vale ADSs, Defendants dispute that the evidence presented for the indirect factors—*Cammer* factors 1, 2, 3, and *Krogman* factor 2—as well as the direct evidence provided for *Cammer* factor 5, support a finding that the Vale Notes traded in an efficient market.

Given the distinctions between equity securities and debt securities—including that the latter generally trade at a lower volume—many courts have noted that with respect to bonds, the *Cammer* factors are "merely an analytical guide and are not exhaustive." *In re Winstar Commc'ns Sec. Litig.*, 290 F.R.D. 437, 449 (S.D.N.Y. 2013); *In re Dynex Cap., Inc. Sec. Litig.*, No. 05 CIV. 1897, 2011 WL 781215, at *4 (S.D.N.Y.

Mar. 7, 2011) ("The Second Circuit has not fully addressed this issue, but has suggested that the *Cammer* factors be adjusted in the context of bond markets."); *In re DVI Inc. Sec. Litig.*, 249 F.R.D. at 215 (finding that even where a particular "trading volume would not likely support a finding of an efficient market for equities, it [was] sufficient to support such a finding for corporate bonds."). Here the parties have not provided any additional factors for the Court to analyze. But their respective arguments about the differences between bond and equity markets as they affect the factors are addressed below.

As to *Cammer* factor 1, according to Feinstein, the Vale Notes traded actively and frequently, typically trading "numerous times per day." (Feinstein Rep. ¶¶ 233–36). He concluded that their average weekly turnover was: (1) 2.32% for the TAN3 Note; (2) 2.06% for the TAM5 Note; (3) 6.31% for the TAP8 Note; (4) 1.28% for the TAE3 Note; (5) 2.91% for the TAH6 Note; (6) 2.66% for the TAK9 Note, and (7) 2.49% for the EAA3 Note. (*Id.* ¶ 230). By this calculation, only one Note failed to meet the 2% threshold for a "strong presumption" of efficiency, and all exceeded the 1% threshold for a "substantial presumption." *Cammer*, 711 F. Supp. at 1286; *see also* Feinstein Rebuttal ¶ 102. Defendants' expert, Walter Torous, concluded, however, that because Feinstein failed to remove duplicate trades and agency trades, Feinstein overstated the total trading volume of the Vale Notes by as much as 31%, and thus incorrectly failed to conclude that three notes did not meet the 2% turnover threshold. (Torous Rep. at ¶¶ 60–69). During oral argument, CAAT's counsel explained that the inclusion of these trades was proper as a "judgment call" since excluding them would "falsely reduce" the trading volume. (Tr. at 15: 7–22; *see also* Feinstein Rebuttal ¶¶99–100, 104–109 (explaining why retaining these "legitimate trades" as part of the "data and volume

computation" is "consistent with . . . authority" and necessary to avoid "downward bias")). Even conceding that Defendants are correct that the figures are overstated, they have not shown that exclusion of the disputed trades brings any bond below the "strong efficiency" threshold. On balance, the figures slightly favor finding the Notes traded in an efficient market. *E.g.*, *In re Dynex Cap.*, 2011 WL 781215, at *4 ("[E]ven if a presumption based on 1% trading volume is not triggered, Dr. Ferri has shown that trading in the Bonds was active. . . . A turnover rate below the 1% threshold established in *Cammer* for the stock market does not, without more, defeat a finding of an efficient bond market.").

As to *Cammer* factor 2, while CAAT argues that three major ratings agencies—Fitch, Moody's, and S&P—covered Vale Notes, and at least 35 analysts and the news media at large followed Vale, (Feinstein Rep. ¶¶ 237–44), CAAT has not shown that *analysts* covered Vale Notes specifically, as opposed to the company as a whole. "Coverage by credit rating agencies, on its own, has limited probative value with respect to the market efficiency for a debt security." *Teva*, 2021 WL 872156, at *19; *see also In re Winstar Commc'ns Sec. Litig.*, 290 F.R.D. at 446 n.10 ("Bonds that are not rated by these three agencies may militate against market efficiency, but having all three ratings is not a strong indicator that the market was efficient."). And evidence of analyst coverage of the company at large—but not a specific security—is insufficient evidence to conclude that the particular security trades in an efficient market. *E.g.*, *Teamsters Loc. 445 Freight Div. Pension Fund v. Bombardier, Inc.*, No. 05-CIV-1898, 2006 WL 2161887, at *10 (S.D.N.Y. Aug. 1, 2006), *aff'd*, 546 F.3d 196 (2d Cir. 2008). Here, although Feinstein's rebuttal report observes that there was "dedicated analyst coverage focusing on the Notes," CAAT provides no citation to a particular report. (Feinstein

Rep. ¶¶ 237–38; Feinstein Rebuttal ¶ 12). Accordingly, despite the considerable analyst coverage of Vale equities generally, this factor does not weigh in favor of a finding of market efficiency for the Vale Notes.

As to *Cammer* factor 3, CAAT argues that since the Vale Notes traded over-the-counter and had at least 15 underwriters, including major investment banks which make a market in Vale Securities, the Notes traded in an efficient market. (Feinstein Rep. ¶¶ 249–54). Defendants argue that this is insufficient because it requires assuming that underwriters are market makers. "But courts regularly hold that that level of underwriter involvement in a notes offering can help weigh in favor of market efficiency." *Teva*, 2021 WL 872156, at *20; *see also Petrobras*, 312 F.R.D. at 366 (finding market efficiency, crediting, in part "that there were at least 20 underwriters of the Petrobras Bonds, including large and prominent investment banks" and Feinstein's opinion "that underwriters generally serve as market makers for securities and that many investment banks that published analyst reports covering the bonds also served as market makers."). Accordingly, here, this factor weighs in favor of a finding of market efficiency.

As to *Cammer* factor 4, it is undisputed that Vale was eligible to, and did file, an F-3 registration during the class period. (Feinstein Rep. ¶¶ 259–60). This factor supports a finding of efficiency.

As to the *Krogman* factors, the aggregate par value of the Vale Notes—which CAAT's expert suggests is a measurement akin to market capitalization when analyzing bonds—was $12.05 billion, a figure larger than the total market capitalization of many public companies. (Feinstein Rep. ¶¶ 255–58). Courts have credited similar analysis as supporting a finding of efficiency. *E.g.*, *Petrobras*, 312 F.R.D. at 366–371 (noting that

under the "fist modified *Cammer* factor[,]" an "aggregate par value of Petrobras Notes totaled $41.4 billion and was larger than 90% of all market capitalizations on the NYSE, Amex, and NASDAQ[,]"contributed in part to a finding that "the indirect *Cammer* factors lay a strong foundation for a finding of efficiency"); *Winstar*, 290 F.R.D. at 449 (finding that where the "total par value of all three Winstar bonds was $1.88 billion. . . . [t]he sufficiently large issue size . . . [was] consistent with a more liquid and efficient market."). Feinstein did not analyze the bid-ask spread because he lacked the data and could not have done such analysis. (Feinstein Tr. at 249: 18–250: 5). Thus, two of the three *Krogman* factors weigh in favor of a finding of market efficiency.

Accordingly, the weight of the indirect evidence tips in favor of a finding that the Vale Notes traded in an efficient market.

As for direct evidence under *Cammer* factor 5, CAAT again relies on an event study conducted by Feinstein. Feinstein's study was designed to test "whether the Vale Notes reacted to the information events and announcements that elicited significant ADR price reactions in the ADR event study"—*e.g.*, the events and announcements that occurred on January 25, 2019, January 28, 2019, February 4, 2019, and February 6, 2019. (Feinstein Rep. ¶¶ 263–64). Feinstein acknowledged some limitations to his study, notably, that "one or some of the Notes did not trade" on "some days[.]" (*Id.* ¶ 271). With respect to the first two event dates, Feinstein concluded that despite the absence of certain data, using a two-day window, all seven bonds exhibited significant price reaction after Dam 1 collapsed on January 25, 2019, and on January 28, 2019. (*Id.* ¶¶ 273–74). With respect to the third event date, February 4, 2018, Feinstein concluded that one of the seven Vale Notes had a statistically significant reaction, and with respect to the fourth event date, February 6, 2018, three of the seven Vale Notes displayed a

statistically significant reaction. (*Id.* ¶ 275). In addition, Feinstein further noted as "compelling proof" of efficiency that "[t]he regression results show[ed] that all of the Notes moved significantly on a day-today basis with the Benchmark Bond return." (*Id.* ¶ 280).

Defendants' rebuttal report contends that Feinstein's report cannot establish efficiency in the note market because he did "not consistently find statistically significant price movements for half of" the four event dates tested. (Torous Rep. ¶ 79). Specifically, Torous concludes that Feinstein does not establish efficiency because: (1) the TAN3 note did not trade on January 25, 2019, the date that Dam 1 collapsed; (2) six of seven notes did not exhibit statistically significant price reaction on February 4, 2019; (3) four of seven notes did not exhibit statistically significant price reaction on February 6, 2019; and (4) four of seven notes did not exhibit statistically significant price reaction on either February 4 or February 6, 2019. (*Id.* ¶¶ 75–79). And this observation—that Feinstein failed to show that the bond prices actually moved in response to key events—certainly blunts the force of his conclusions.

But more pertinent is the fact that Feinstein's event study uses the same methodology for the Notes that was used for the Vale ADSs. (Feinstein Rep. ¶ 263 ("I tested whether the Vale Notes reacted to the information events and announcements that elicited significant ADR price reactions in the ADR event study.")). In other words, his method for selecting event dates for the bond study was not done in a fashion that the Court finds reliable. And, for the same reasons explained above, the Court is left to conclude that due to its methodological deficiencies, the event study is entitled to no weight. *See supra* at 23–33.

As was the case with the ADSs, the Court is left with no direct evidence of an efficient market under the fifth *Cammer* factor. And again, Defendants' expert does not offer his own affirmative conclusion or opinion that the market for Vale Notes was inefficient. (Torous Dep. at 23: 11–20 ("I was asked to review and respond to Dr. Feinstein's analysis. And evaluating whether the market for Vale ADRs or notes was inefficient or not was not a task that I . . . investigated in this report."); *see also* Reply at 10).

Although, unlike the ADSs, the analysis of the Notes does not mirror the analysis in *Waggoner* as significantly, the weight of the indirect evidence under *Krogman* and the first four *Cammer* factors, which tip in favor of efficiency, suggest that Vale Notes, too, traded in an efficient market. *See, e.g.*, *In re NII Holdings, Inc. Sec. Litig.*, 311 F.R.D. 401, 413 (E.D. Va. 2015) ("[E]ven if the fifth *Cammer* factor were considered weak, the evidence offered in support of the other *Cammer* factors as well as the non-*Cammer* factors is more than sufficient to demonstrate by a preponderance of the evidence that the stocks and bonds at issue traded in an efficient market.").

iii. *Affiliated Ute* Presumption

As an alternative to the *Basic* presumption, plaintiffs can avail themselves of the *Affiliated Ute* presumption." *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972). The *Affiliated Ute* presumption is available "in cases involving primarily omissions, rather than affirmative misstatements, because proving reliance in such cases is, in many situations, virtually impossible." *Waggoner*, 875 F.3d at 93. As such, plaintiffs may invoke the presumption in cases where "no positive statements exist," but *not* cases where "omissions only exacerbated the misleading nature of the affirmative statements." *Id.* at 95–96 (quotations omitted). In other words, the presumption does

not "apply to misstatements whose only omission is the truth that the statement misrepresents." *Id.* at 96. "[W]here plaintiffs' claims are based on a combination of omissions and misstatements, courts in [the Second Circuit] have acknowledged the applicability of the *Affiliated Ute* presumption." *Fogarazzao v. Lehman Bros.*, 232 F.R.D. 176, 186 (S.D.N.Y. 2005). However, "where a plaintiff's theory is based entirely, or even primarily, on misrepresentations as opposed to omissions" the presumption is not available. *In re Barclays Liquidity Cross & High Frequency Trading Litig.*, 126 F. Supp. 3d 342, 365 (S.D.N.Y. 2015), *vacated and remanded on other grounds sub nom. City of Providence v. BATS Glob. Mkts., Inc.*, 878 F.3d 36 (2d Cir. 2017).

Of the 26 statements that Judge Dearie found to be actionable in whole or in part, five statements were deemed actionable as statements that omitted "facts suggesting that there were known issues with dams and that [Vale's Stability Condition Statements] were unduly influenced and certified for dams with insufficient factors of safety[.]" *In re Vale*, 2020 WL 2610979, at *14 (citing CAC ¶¶ 158, 189, 191, 197, 199). The relevant omission there was the truth of the auditor's financial conflict of interest. The parties dispute whether these contain a corresponding affirmative misstatement in the pleadings. (*Compare* Reply at 14 *with* Tr. at 34: 17–21). Regardless, the vast majority of the statements at issue in this case involve affirmative misstatements. Indeed, CAAT's primary theory of liability is that Vale affirmatively misrepresented the risk that Dam 1 would collapse and the sufficiency of its risk management practices and stability certifications. (Mot. for Class Cert. at 3). Accordingly, CAAT is not entitled to the *Affiliated Ute* presumption. *See In re Barclays*, 126 F. Supp. 3d at 365 (declining to apply presumption where "theory of liability [was] based primarily, if not entirely, on

Barclays's alleged misrepresentations, with any omissions playing only a minor role in exacerbating the misrepresentations' effect.").

iv. Domesticity

The parties dispute whether the presence of some unknown number of non-domestic transactions of Vale Securities defeats predominance. Claims under the Securities Act and Exchange Act are presumptively limited to (1) "transactions in securities listed on domestic exchanges," and (2) "domestic transactions in other securities." *In re Petrobras Sec.*, 862 F.3d at 262 (citing *Morrison v. Nat'l Australia Bank Ltd.*, 561 U.S. 247, 267 (2010)).

Here, the class is defined in terms of location insofar as it is limited to transactions on the NYSE—which by definition are domestic, *see id.*,—or on other U.S. exchanges or in a U.S. transaction. Specifically, the Class includes "all persons who purchased on the New York Stock Exchange ("NYSE") or other U.S. exchanges or in a U.S. transaction" where the "U.S. transaction" include bonds traded over-the-counter. (Mot. for Class Cert. at 1). Yet even if deemed "a U.S. transaction," over-the-counter trades may include some transactions that occurred abroad. *See Banco Safra S.A.-Cayman Islands Branch v. Samarco Mineracao S.A.*, 849 F. App'x 289, 295 (2d Cir. 2021). The Court is "authorized to implement management strategies tailored to the particularities of [the] case" to exclude non-viable purchases. *In re Petrobras Sec.*, 862 F.3d 250 at 274. And such exclusion can take place during any trial or claims process. *See, e.g.*, *In re Visa Check/MasterMoney Antitrust Litig.*, 280 F.3d 124, 141 (2d Cir. 2001) ("There are a number of management tools available to a district court to address any individualized damages issues that might arise in a class action, including: (1) bifurcating liability and damage trials with the same or different juries; (2) appointing a

magistrate judge or special master to preside over individual damages proceedings; (3) decertifying the class after the liability trial and providing notice to class members concerning how they may proceed to prove damages; (4) creating subclasses; or (5) altering or amending the class."), *abrogated on other grounds by In re Initial Pub. Offerings Sec. Litig.*, 471 F.3d 24 (2d Cir. 2006). At this stage, a plaintiff need not "provide adequate assurance that there can be 'a reliable and administratively feasible mechanism for determining whether putative class members fall within the class definition.'" *In re Petrobras Sec.*, 862 F.3d at 267 (quotations omitted).

Defendants have not provided any quantification of the number of potential non-U.S. bond transactions at issue here. CAAT has proffered a class definition that attempts to permit only eligible transactions to move forward. Absent any evidence that the number of non-eligible transactions that might slip through, or which could not be easily handled through a claims administration or trial management process, is so numerous as to overwhelm the eligible transactions, the Court will not rely on mere speculation to conclude that predominance is defeated. The Court finds no basis to deny class certification on the basis that individualized inquiries into the domesticity of transaction will defeat predominance.

v. <u>Damages</u>

The parties also dispute whether damages can be calculated on a classwide basis. To prevail on a motion for class certification, a plaintiff must provide a model that establishes "that damages are capable of measurement on a classwide basis." *Comcast Corp. v. Behrend*, 569 U.S. 27, 34 (2013). "In *Comcast*, the Supreme Court held that courts should examine the proposed damages methodology at the certification stage to ensure that it is consistent with the classwide theory of liability and capable of

measurement on a classwide basis." *In re U.S. Foodservice Inc. Pricing Litig.*, 729 F.3d 108, 123 n.8 (2d Cir. 2013). "Calculations need not be exact, but at the class-certification stage (as at trial), any model supporting a plaintiff's damages case must be consistent with its liability case" and "courts must conduct a rigorous analysis to determine whether that is so." *Comcast*, 569 U.S. at 35 (internal quotations and citation omitted). "*Comcast* requires that a putative class seeking Rule 23(b)(3) certification demonstrate a linkage between its theory of liability and its theory of damages [which] [t]he Court must examine . . . at the class certification stage, even where the inquiry overlaps with, or is 'pertinent to[,] the merits determination.'" *Jacob*, 293 F.R.D. at 588 (citation omitted) (third alteration in original). "[A] proposed damages calculation . . . can survive 'notwithstanding the feasibility-related issue of the potential need for manual input of certain limited information.'" *Fort Worth Employees' Ret. Fund*, 301 F.R.D. at 141 (quoting *Megason v. Starjem Rest. Corp.*, No. 12 Civ. 1299, 2014 WL 113711, at *6 (S.D.N.Y. Jan. 13, 2014)).

"In other words, . . . *Comcast* 'held that a model for determining classwide damages . . . must actually measure damages that result from the class's asserted theory of injury.'" *Waggoner,* 875 F.3d at 106 (citing *Roach*, 778 F.3d at 407). However, "no actual calculation needs to be performed" at certification. *Fort Worth*, 301 F.R.D. at 142. In general, courts have found *Comcast* to pose a low bar. *See, e.g.*, *Strougo v. Barclays PLC*, 312 F.R.D. 307, 313 (S.D.N.Y. 2016) ("Issues and facts surrounding damages have rarely been an obstacle to establishing predominance in section 10(b) cases.").

Feinstein explains that to calculate damages, he would use tools including economic analyses such as "valuation and empirical event" studies. (Feinstein Rep. ¶

291; *see also id.* ¶¶ 290–91 (concluding that the "out-of-pocket damage methodology" he provides "can be applied commonly for all Class members" and "allows the calculation of individual and class-wide damages stemming from various alleged misrepresentations and omissions[.]")). To calculate artificial inflation, Feinstein details several other valuation tools and analyses that could be used, including discounted cash flow models and scenario analysis. (*Id.* ¶¶ 292–94). Such an event study, capable of "disaggregating" "confounding information disclosed in the numerous purported corrective disclosures"—is "the generally accepted method for measuring damages in a securities fraud class action[.]" *Signet*, 2019 WL 3001084, at *19–20.

Finally, Feinstein's report provides a four-step process for calculating damages through a "mechanical arithmetic exercise": first, valuation tools and other empirical analysis would establish if the corrective disclosure alleged caused the price of Vale Securities to fall; second, an inflation ribbon would establish how much artificial inflation was incorporated into the price of the security for each day of the class period; third, "per security damages would be calculated as the difference between the inflation on the date the security was purchased and the inflation on the date those same security was subsequently sold, or, if held, at the end of the Class Period"; and fourth, per security damages would be limited "to be no greater than the decline in security price over the investor's respective holding period, which is the investment loss actually sustained." (Feinstein Rep. ¶ 295).

Feinstein has provided sufficient detail on his valuation tools and methodology and has explained how calculations would be performed using an event study and inflation ribbon to satisfy *Comcast*. (Reply at 15–16).

Defendants' arguments to the contrary are without merit. They first contend that this damages theory is inconsistent with the two distinct theories of liability advanced by Plaintiff from both pre- and post-collapse statements. But as discussed, *see supra* at 8–9, there is no such dichotomy in CAAT's liability theories, and Defendants' attempt to shoehorn this case into the other *Vale* litigation analysis is misplaced.

Here, although Feinstein has not yet computed damages or conducted a loss causation analysis, the model he outlines is similar in operation and detail to ones that have regularly been approved by other courts in this circuit. *E.g.*, *Pirnik*, 327 F.R.D. at 47 ("Dr. Nye's damages model—which involves determining the change in a security's price caused by a corrective disclosure by isolating price movements specific to FCA through an event study; analyzing, for each day of the Class Period, the amount of inflation in the stock price due to the alleged fraud and then mechanically calculat[ing] damages on an individual basis by analyzing a class member's actual trading activity—is sufficiently consistent with that theory.") (alteration in original) (internal quotations and citation omitted); *Wilson v. LSB Indus., Inc.*, No. 15-CIV-7614, 2018 WL 3913115, at *17 (S.D.N.Y. Aug. 13, 2018) (finding that a similar three-step damages model prepared by Feinstein complied with *Comcast* and rejecting defendants' argument that Feinstein was required to specify which valuation tools would be used and how calculations would be performed); *see also Betances v. Fischer*, 304 F.R.D. 416, 430 (S.D.N.Y. 2015) (rejecting argument that *Comcast* precluded class certification where plaintiffs "failed to

provide the mathematical formula they intend to use to calculate damages on a class-wide basis").[20]

While intricate, like many securities fraud actions, this case is not as dauntingly complex as Defendants suggest. First, although CAAT has alleged multiple misrepresentations, they all stem from the same theory of liability: misleading investors about the safety of the dam before and after the collapse. *See supra* at 8–9. Defendants cite no in-circuit authority to support the proposition that a damages model must address each misrepresentation at issue and tie it to the corresponding corrective disclosures. Defendants argue that the model must address the distinctions between corrective disclosures and materializations of the risk, which require a determination on the difference between the perceived probability of risk and the true probability. Not so. This argument, akin to a "loss causation argument in disguise," *Signet*, 2019 WL 3001084, at *20, need not be resolved at class certification. *See, e.g.*, *Carpenters Pension Tr. Fund of St.*, 310 F.R.D. at 99–100 ("While there are significant obstacles to proving damages in this case . . . plaintiffs are not required to demonstrate either loss causation or damages for purposes of class certification. In other words, whether plaintiffs will be able to prove loss causation or measure price impact . . . are questions that go to the merits and not whether common issues predominate."); *see also In re Barrick Gold Sec. Litig.*, 314 F.R.D. 91, 105–06 (S.D.N.Y. 2016) ("[P]laintiffs are not required to establish loss causation—let alone proffer a damages model—on class

[20] Defendants rely on *Fort Worth Employees' Ret. Fund v. J.P. Morgan Chase & Co.*, 301 F.R.D. 116, 141 (S.D.N.Y. 2014) to argue that more precision is required, but *Fort Worth* is distinguishable: there, the court addressed Section 11 claims, and evaluated an expert report which put forth three *separate* statutory methodologies (the market price method, the cash flow method, and the third-party pricing method) without specifying which one would be used in the ultimate calculation. *Id.* at 130, 141.

certification . . . [where] plaintiffs' actual theory of damages (out-of-pocket damages) is entirely consistent with their theory of Section 10(b) liability and would be measurable on a class-wide basis."). It is not a sufficient basis to find that the class may not be certified. Lastly, although Feinstein's damages model does not distinguish between treatment of equity securities and debt securities, the Court is not persuaded that it is required to do so. *See, e.g.*, *Teva*, 2021 WL 872156, at *40–41 (rejecting argument that damages model is insufficient because it failed to address distinct characteristics of notes as compared to equity securities).

vi. Class Definition

The parties also dispute whether the class contains members who have suffered no cognizable injury and is thus overbroad. Defendants argue that the following two groups of investors should be excluded from the class definition: (1) those who would be unable to recover damages under the PSLRA's "90-day bounce back period," and (2) "in-and-out" traders. (Opp'n at 21–23).

The PSLRA's "bounce back" provision provides that:

> the award of damages to the plaintiff shall not exceed the difference between the purchase or sale price paid . . . by the plaintiff for the subject security and the mean trading price of that security during the 90-day period beginning on the date on which the information correcting the misstatement or omission that is the basis for the action is disseminated to the market.

15 U.S.C. § 78u–4(e)(1). In other words, "[t]he bounce back provision of the PSLRA caps damages by factoring in gains that occur within ninety days after a corrective disclosure." *In re Vivendi Universal, S.A. Sec. Litig.*, 123 F. Supp. 3d 424, 438–39 (S.D.N.Y. 2015). "[I]f the mean trading price of a security during the [bounce back period] is greater than the price at which the plaintiff purchased his stock[,] then that

plaintiff would recover nothing." *Id.* at 439 (citation omitted) (second and third alteration in original). This is only true "where the mean trading price during the bounce back period is greater than the plaintiff's purchase price." *Id.*

Here, Defendants argue that for Vale ADSs, "all purchases from October 27, 2016 to February 10, 2017 and from February 24 to August 31, 2017"—which amounts to roughly 46% of the proposed class—are ineligible for damages under the bounce back provision. (Torous Rep. ¶ 101). For Vale Notes, purchases made from zero to up to roughly 13% of dates in the class period would be ineligible for recovery. (*Id.* ¶ 103). "In-and-out traders are those who both purchase and sell all of their shares prior to a corrective disclosure[.]" *Pearlstein v. BlackBerry Ltd.*, No. 13 CIV. 7060, 2021 WL 253453, at *11 (S.D.N.Y. Jan. 26, 2021) (citation omitted). Here, the first corrective disclosure occurred on January 25, 2019. The Second Circuit has explained that where in-and-out traders are not able to "conceivably" prove loss causation as a matter of law, they should not be included in a class. *In re Flag Telecom Holdings, Ltd. Sec. Litig.*, 574 F.3d 29, 40 (2d Cir. 2009).

Both investors whose recovery is limited by the bounce back provision, and any in-and-out traders included in the current class definition, will not be able to recover damages under Feinstein's proposed damages model. Other courts in this Circuit have rejected the argument that investors who are ineligible for damages should be excluded from the class at certification, because such exclusions are "unnecessary" and "premature" at this stage. *See Hawaii Structural Ironworkers Pension Tr. Fund, Inc. v. AMC Ent. Holdings, Inc.*, 338 F.R.D. 205, 217–18 (S.D.N.Y. 2021). In *AMC Entertainment*, the defendants made nearly identical arguments to Defendants' arguments here: "that any class certified for the Section 11 claims should exclude any

prospective class members who sold the AMC shares that they acquired from the SPO above the offering price of $31.50 per share" since under "15 U.S.C. § 77k(e), those purchasers would not be entitled to any [statutory] damages" and that for Exchange Act claims, "any 'in-and-out' traders, . . . should be excluded from the definition of the certified class because they too would not be eligible for damages." *Id.* at 217. The court noted that "[u]ndeniably, 'an investor who is not damaged would not have a viable claim,' and thus requiring the class definition expressly exclude those who are ineligible for damages is superfluous." *Id.* (quoting *In re Initial Pub. Offering Sec. Litig.*, 671 F. Supp. 2d 467, 492 (S.D.N.Y. 2009)).

The Court finds no basis to deny class certification because the class includes individuals whose recovery may be zero. *Roach*, 778 F.3d at 409 ("[I]ndividualized damages determinations alone cannot preclude certification under Rule 23(b)(3)[.]").

b. <u>Superiority</u>

A plaintiff must also show that proceeding as a class action "is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b)(3). The court should consider

> (A) the class members' interests in individually controlling the prosecution or defense of separate actions;
> (B) the extent and nature of any litigation concerning the controversy already begun by or against class members;
> (C) the desirability or undesirability of concentrating the litigation of the claims in the particular forum; and (D) the likely difficulties in managing a class action.

Id. Defendants do not contest that a class action is superior to other available methods of adjudication. With good reason. "Securities suits easily satisfy the superiority requirement. Most violations of the federal securities laws . . . inflict economic injury on large numbers of geographically dispersed persons such that the cost of pursuing

individual litigation to seek recovery is often not feasible." *Darquea v. Jarden Corp.*, No. 06-CIV-722, 2008 WL 622811, at *5 (S.D.N.Y. Mar. 6, 2008). The same is true here.

3. Ascertainability

"Rule 23 definiteness and ascertainability requires that the proposed class size is knowable, and that the class is defined in such a way that proposed class members are objectively determinable." *Enea v. Bloomberg, L.P.*, No. 12-CV-4656, 2014 WL 1044027, at *3 (S.D.N.Y. Mar. 17, 2014); *In re Initial Pub. Offerings Sec. Litig.*, 471 F.3d at 30, *decision clarified on denial of reh'g*, 483 F.3d 70 (2007). "A class is ascertainable when defined by objective criteria that are administratively feasible and when identifying its members would not require a mini-hearing on the merits of each case." *Brecher v. Republic of Argentina*, 806 F.3d 22, 24–25 (2d Cir. 2015) (quoting *Charron v. Pinnacle Grp. N.Y. LLC*, 269 F.R.D. 221, 229 (S.D.N.Y. 2010)); *see also In re Petrobras Sec.*, 862 F.3d at 266–67 ("[A] class must be 'sufficiently definite *so that* it is administratively feasible for the court to determine whether a particular individual is a member'; a class must be 'defined by objective criteria' *so that* it will not be necessary to hold 'a mini-hearing on the merits of each case.'") (quoting *Brecher*, 806 F. 3d at 24).

Defendants do not contest that the ascertainability requirement is satisfied. Here, the proposed class as originally defined is defined by objective criteria in terms of its subject matter, timing, and location.

CONCLUSION

For the reasons stated above, the Court respectfully recommends that CAAT's motion for class certification be granted and the following class be certified:

> all persons who purchased on the New York Stock Exchange ("NYSE") or other U.S. exchanges or in a U.S. transaction between October 27, 2016 and February 6, 2019, inclusive (the "Class Period"), any of the following publicly-traded Vale securities: (1) Vale ADS; (2) 5.875% Guaranteed Notes due 2021; (3) 4.375% Guaranteed Notes due 2022; (4) 6.250% Guaranteed Notes due 2026; (5) 8.250% Guaranteed Notes due 2034; (6) 6.875% Guaranteed Notes due 2036; (7) 6.875% Guaranteed Notes due 2039; or (8) 5.625% Notes due 2042 (the "Class"). Excluded from the Class are: (i) Defendants; (ii) members of the immediate family of any Defendant who is an individual; (iii) any person who was an officer or director of Vale during the Class Period; (iv) any firm, trust, corporation, or other entity in which any Defendant has or had a controlling interest; (v) Vale's employee retirement and benefit plan(s) and their participants or beneficiaries, to the extent they made purchases through such plan(s); and (vi) the legal representatives, affiliates, heirs, successors-in-interest, or assigns of any such excluded person.

Any objections to the Report and Recommendation above must be filed with the Clerk of the Court within 14 days of receipt of this report. Failure to file objections within the specified time waives the right to appeal any judgment or order entered by the District Court in reliance on this Report and Recommendation. *See* 28 U.S.C. § 636(b)(1); Fed. R. Civ. P. 72(b)(2); *Caidor v. Onondaga Cnty.*, 517 F.3d 601, 604 (2d Cir. 2008) ("[F]ailure to object timely to a magistrate [judge's] report operates as a waiver of any further judicial review of the magistrate [judge's] decision.") (citation omitted).

SO ORDERED.

/s/ Sanket J. Bulsara January 11, 2022

SANKET J. BULSARA
United States Magistrate Judge

Brooklyn, New York